DIGITAL SERVO CONTROLLER

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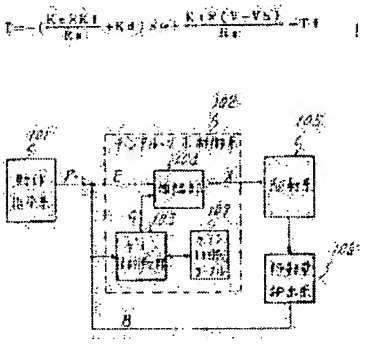
Abstract of **JP 1236303 (A)**

PURPOSE:To reduce the variation of the moving speed of a moving object caused by the load fluctuation of a motor so as to improve the positioning accuracy of the object by estimating the torque of the motor being driven from the feedback of the moving quantity of the object and the command value of a driving system and converting a gain at real time in accordance with the torque. CONSTITUTION:When the induced voltage constant, torque constant, viscous braking factor, armature resistance, brush voltage drop, frictional torque, which are constants inherent to a motor, are respectively represented by Ke, Kt, Kd, Ra, Vb, and Tf and the motor rotating speed and motor terminal voltage are respectively represented by (w) and large V as variables indicating the state of the motor, the torque T applied to the motor is expressed by equation I. Moreover, the rotating speed (omega) of the motor is expressed by omega=B/Tm. A gain switching section 103 finds the torque T from the above-mentioned formula by using the command value X of a driving system and moving quantity B at the previous sampling time given from a digital servo controlling system 102.



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